

## DESIGN DOCUMENTATION DETAILS

### 1. Introduction:

Sunshine Coast Council (SCC) requires that all design plans and documentation, including plans, estimates of project costs, and construction (set out) models produced by External Consultants and Contractors, be provided in the following format.

### 2. Plans

A Sunshine Coast Council indexed project number is to be referenced on all submitted design plans. This plan number is to be noted on all hardcopy plans, electronic plans and electronic file names (eg. D-1234.dwg), this number is supplied in the contact documents.

### 3. Survey, Design, Drafting, Estimating, and preparation of Construction Models

All electronic data, or emails with data sent to SCC must be accompanied by a "Document Transmittal Form".

The following are a series of adopted standards used within the SCC:

- a) The Survey and Design Software currently in use is 12d Model. Copies of relevant libraries are available from the Design Office and must be used for the preparation of designs.

All surveys and designs prepared for SCC must be prepared in 12d Model, utilising the SCC standard libraries and format. These cover linetypes, colours, text etc.

#### Survey Requirements

- Horizontal Datum: Survey to be presented in plane (as opposed to Geodetic). The horizontal coordinates of the vertical datum PSM are to equal it's Geocentric Datum of Australia (GDA94) co-ordinates.
- Vertical Datum: Australian Height Datum as the vertical control. Provide datum PSM information and note it on the plan.
- Council uses Plane survey type, if Geodesic distance is requested provide the method used with the scale factor and formulae.
- Survey stations and recovery, control (PSM, BM and TBM) and reference marks to be tabulated on plan and provided in an electronic text file, suitable named (eg D-1234 Marks.dat).
- "Names" of strings need to be less than 16 characters long.
- Zero Heights need to be "nulled".
- All models/layers should have a prefix to isolate the survey data such as "Exist". For example Exist kerb lip.

## Design Requirements

All designs should conform to SCC standards, including Austroads, QUDM, Manual of Uniform Traffic Control Devices, current Planning Scheme Policies, relevant Australian Standards and any other reference material adopted by Council.

The Computer Aided Drafting Software currently in use is AutoCAD, and is used to produce all drafting requirements for the Council. Template drawings are available from the Design Office and must be used for the preparation of design drawings.

All survey and design drawings prepared for SCC shall be created in AutoCAD utilising the following:

- SCC standard title block to be used (available from SCC Design Office) for all designs.
- SCC drawing number to be included and placed appropriately on the title block for plans prepared.
- The minimum text font size used is to be 3.5 mm for a 1:1, or 1:2 plots.
- Plan sizes for general works are to be produced electronically to A1 size, utilising SCC's standard title block. Prints or plots are generally to be Laser prints of A3 size (ie 1:2 plot of the electronic A1 drawing).
- Plans must contain the standard notes referring to the "Manual of Uniform Traffic Control Devices", public utilities eg Telstra in relation to location of cables and DBYD.
- Bind all external reference files used to the AutoCAD drawing.
- Council drawings are generally plotted 1:2 to the Laser Printer for A3 size plans, without the use of configuration files as council use the line weight method of drawing. Conformity ensures ease of printing from any Designer or Operator. Plot styles and fonts other than SCC standards relating to the project must be included in addition to the drawing files.
- For each design a Design Register containing all design parameters should be provided. In addition an endorsed EDD/Design Exceptions Report shall also be provided.

## Estimating Requirements

The Estimating Software currently used by the Design Office is Microsoft Excel. All estimates for projects must be submitted both electronically and with a signed paper copy.

Council uses the Transport & Main Roads Department "Standard Specification - Roads" as a basis for the items for all work.

## Construction Model Requirements

- Alignment strings (Master Control, Lip of kerbs, Crowns, Edge of bitumen, Formation edge, Drains, Culverts, Pathways, etc) all with unique string names. All alignment strings to be graded with straights and vertical curves.
- All structural concrete components provided with x,y,z coordinates (Gully pit – lip, Field inlet – centre, Round MH – centre, Rombus MH – corners, Street light pole and pit, Kerb ramp – both sides invert and top of ramp).
- DTM of Subgrade and Finished surfaces, ensure vertical curves are accurate.

- Remove any zero length straights in Alignments.
- Provide a base drawing of the existing features, design and master control chainages for loading into the survey robot controllers.
- Bridges – all data e.g. Abutment, kerb, all walls and headstock alignments superstrings – Pile set out.

#### **4. Documentation:**

All documentation for Council purposes is to be produced under MS Office in MS Word, including Tender Specification, and/or Contract Documentation.

Maintenance plans are to be supplied for all specific structures and features.

The file naming convention for electronic data is to be project related i.e. drawing numbers to be D-1234-01.dwg (drawing number D-1234 sheet 1) for AutoCAD drawings, D-1234.xls for estimates and D-1234.zip for Design files. PDF file format is used for the supply of plot files.

#### **5. Quality Management System:**

Council is fully committed to the maintenance of its Integrated Quality Management System and its processes. The full system is outlined in the Procedure Manual available from Council's Quality Management System. If Consultants do not have their own QM System, then they may obtain a copy of SCC's QMS procedure. Consultants must ensure all aspects of the QM System are followed in the production of construction documentation for each project.

#### **6. General:**

Variance from these standards will not be considered by the Sunshine Coast Council, unless extenuating circumstances can be proven. Written confirmation must be obtained before deviation from these standards.

Generally the provision of 2 certified hardcopy set of plans, a PDF copy of certified set of plans and a copy of software data files is required, or as documented by the contract specifications.

Please contact the SCC Engineering Design Services for further advice on this issue:  
Design & Placemaking Services ~ SCC  
Ph: (07) 54208682